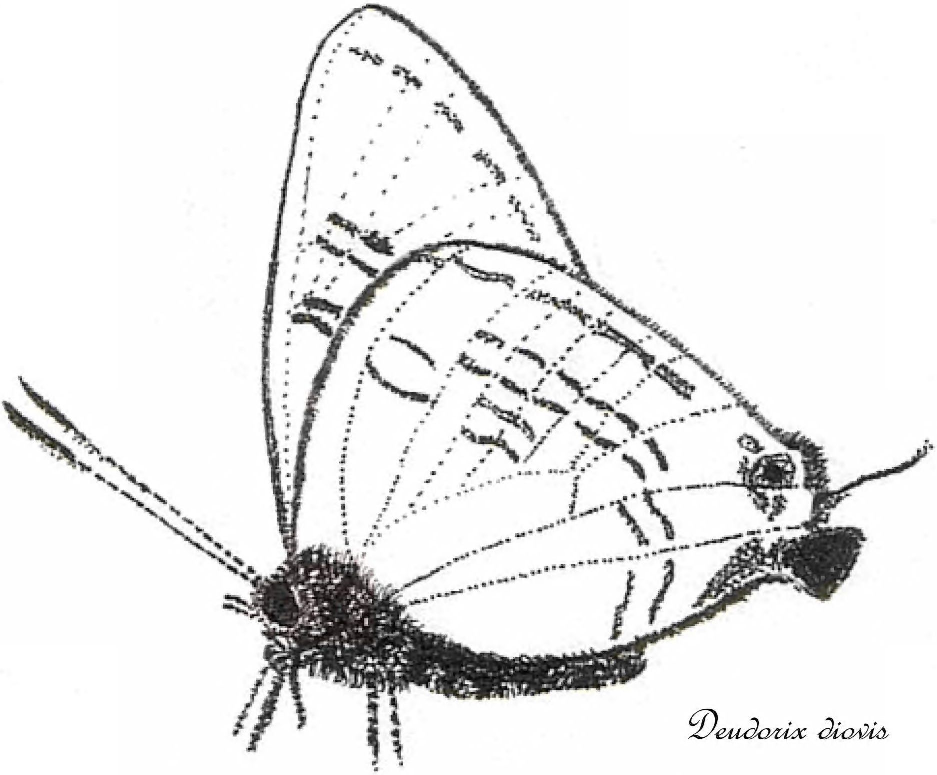

Deudorix diovis

Butterfly & Other Invertebrates Club Inc. Newsletter

ISSUE NO: 24 DATE: MARCH, 2002 ISSN: 1236-0006

CLUB PLANNING AND ORGANIZING GROUP - 2001

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PLANNING AND ORGANIZATION MEETINGS

A quarterly meeting is scheduled in order to plan club activities and the newsletter. See BOIC Programme.

CONTACT ADDRESS

PO Box 2113, Runcorn 4113, Queensland

AIMS OF ORGANIZATION

- To establish a network of people growing butterfly host plants;
- To hold information meetings about invertebrates;
- To organize excursions around the theme of invertebrates e.g. butterflies, fireflies, ants, dragonflies, beetles, freshwater habitats, and others;
- To promote the conservation of the invertebrate habitat;
- To promote the keeping of invertebrates as alternative pets;
- To promote research into invertebrates;
- To encourage the construction of invertebrate friendly habitats in urban areas.

NEWSLETTER DEADLINES

If you want to submit an item for publication the following deadlines apply:
March issue – February 21st
June issue – May 21st
September issue – August 21st
December issue – November 21st

COVER DRAWING

Deudorix diovis by John Neilsen

PRESIDENT’S POSTING

Hello Club members and interested readers. I hope you find this issue interesting and informative. We all owe our thanks particularly to Daphne for bringing all the materials together, Lois for her delightful illustrations and John for ensuring scientific accuracy.

With this issue you’ll find an invitation to be in a members directory. We now have members scattered across Queensland and in most other states. The bulk of our members are in south east Queensland. We’d like to make it possible for members to network with each other in local areas and possibly meet with each other locally to exchange information and ideas. Please complete the enclosed form and let us know that you agree to be in the directory. It will only be available to other Club members who agree to be in it, and everyone in it will need to agree not to pass any information on to other people without their agreement first.

We are also still looking for gardens to visit. Please let us know if you’d welcome a visit from Club members. We are trying to get clusters of gardens that are near each other.

Wishing you a Prosperous New Year

Helen Schwencke

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MARCH 2002 - AGM - PRESIDENT'S REPORT

President's Report 2001, delivered to the AGM held on 2nd March, 2002, at Redlands Indigiscapes Centre, Runnymede Rd., Capalaba.

Looking back over the last year, it has been one of quiet but remarkable achievements. This report covers a 14 month period so is a little fuller than otherwise.

As we enter our 8th year as a Club, we have grown from about 30 members to over 140 at last count, with more joining regularly. Much of this growth has come from the continuing high quality newsletter, thanks principally to Daphne for pulling it together each quarter, and the production of the Swallowtails poster and subsequent publicity organised principally at the hands of our Publicity Officer, Lois. This is not to overlook the contributions from other dedicated club members who give talks, run stalls and variously promote the Club, namely John and Frank.

Our excursions/functions for the year have included

- Visits to local Brisbane places including Alexandra Hills Conservation area (March), Stockyard Creek for our end of year function and light trapping, and in Feb 2002 a trip around various mistletoe bearing trees in the Redlands.
- One day excursions to the Tweed Valley, Kholo Reserve at Pine Mountain (Ipswich) and Mount Tamborine. The Mount Tamborine trip was our most successful since 1996 in terms of numbers of club members who became involved.
- Displays and stalls including the Indigiscapes weekend (August), Society for Growing Australian Plants Flower Show (September), and in particular, David and Margery Barnes' Open Garden (October), with thanks to their generosity, BCC Green Day (Nov), Turners Garden Centre (Feb, 2002)

Thanks goes to all those who acted as excursion leaders, organisers and who staffed the various stalls and displays. These include committee members.

Our most particular success was our Butterfly Workshop, held at Indigiscapes in June last year. This attracted over 90 participants and was given overwhelmingly positive feedback. Several club publications resulted from this event. Most particular thanks goes to Daphne, Lois and John for organising and managing this event, though thanks goes to those who helped in various functions on the day, in particular Bob Miller and son David.

Club members have been involved in giving a number of presentations to a range of different other clubs and societies and, at times, schools. Thanks here goes to Frank, John and Lois.

The Club is involved in a number of projects including the Dutton Park Butterfly Habitat with the Dutton Park Scout Group, and revegetation projects with B4C which involves replanting various butterfly host plants in the Bulimba Catchment. The Club has continued to work on a threatened species project to assist with the reintroduction of the Varied Swordgrass Brown in Yugarapul Park.

We have now produced our 23rd newsletter. It has now been in production for six years, and has been growing and developing. We regularly receive glowing feedback about our newsletter. It seems we have struck a good mix of scientific accuracy with popularity and speaking in lay people's language. Again, this feat couldn't be possible without the dedicated commitment of our contributing members. The thanks in particular goes here to Daphne for pulling the materials together, Lois for her delightful illustrations and covers, and John for scientific referencing and accuracy checking. We count as a major success our growing numbers of contributors, though our regulars, John, Frank, Rob and Bob Miller in particular for keeping a very constant stream of articles and excursion reports coming in, but also to everyone else who writes letters, makes observations or otherwise shares their knowledge or questions with us.

Throughout the year our quarterly planning meetings to conduct the business of the association and plan the program and newsletter have continued. These meetings frequently become an interesting exchange of information. All members are welcome to attend.

My heartfelt thanks goes to the ongoing support the club has received from its members, and most particularly its committee members, Rob MacSloy, John Moss, Frank Jordan, and our hard working, consistent and dedicated members, Daphne Bowden, Lois Hughes, and Terri Wolf. In particular our systems for allowing information to flow well are managed by Rob, who along with being Treasurer undertakes a number of secretarial functions. We are still in search of a secretary.

Our future plans include featuring members butterfly and wildlife gardens. If you have a garden or are involved in a regeneration group please let us know. One of our next excursions is to Jak Guyomar’s and Lois Hughes’ gardens in the Bayside area. We are trying to arrange visits to a number of gardens that are close(ish) to each other.

The challenge for the year ahead is to reach out to more of our members to become involved in Club activities and to develop activities that are attractive to members and the general public. We are also working on a members directory. The intention here is to enable members to network with each other to share information and invertebrate experiences. As the club grows in membership it would be good if people living near each other would form local groups.

Wishing you all a successful and prosperous 2002.

Helen Schwencke

President

CREATURE FEATURE

The Bright Cornelian Butterfly - *Deudorix diovis*: A bit of unsolved science in our own backyard.

The Bright Cornelian (*Deudorix diovis*, pronounced Due-dor-ix die-o-vis), is a member of the Lycaenid or "Blues, Coppers and Hairstreaks" butterfly family. It occurs only in Australia and Papua New Guinea (Parsons, 1999); in Australia, it occurs at Darwin and Coen, and sporadically from Atherton, North Queensland, south to the Gosford and Sydney regions of New South Wales, with the possibility of breeding populations occurring further south (Braby, 2000).

The genus *Deudorix*, to which the Bright Cornelian belongs, contains some 70 species commonly named 'Cornelian' and 'Playboy' and is found in most regions of the Australian and Indo-Malayan archipelagoes.

There have even been several recent additions to this genus of butterflies from the Solomon Islands and Papua New Guinea (W.J. Tennant, 2000).

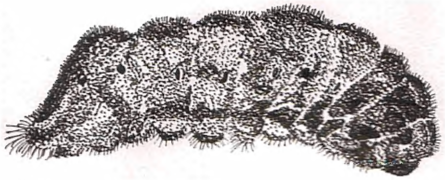
The Bright Cornelian was once considered a subspecies of the Dull or Northern Cornelian (*Deudorix epijarbis*), which occurs in North Queensland. However, it was found that both Cornelians occurred together; in North Queensland larvae of both species have been found on the same host plant, indicating that the Dull and Bright Cornelians are separate species. Subsequently, the Bright Cornelian has been assigned a specific rank (*D. diovis*), whilst the Dull Cornelian (*D. epijarbis dido*) remains a subspecies of the species *epijarbis*.

The Bright Cornelian is an enigma, with many aspects of this species biology unknown until relatively recently. Once considered a generally uncommon, rarely seen species (Common and Waterhouse, 1981), the Bright Cornelian is now considered a fairly common, although local, species. Its success is most likely due to the introduction of two of its many host plants to streets and gardens, specifically *Cupaniopsis anacardioides* (Tuckeroo) and *Harpullia pendula* (Tulipwood). These two species are commonly planted as street trees, particularly on the Sunshine Coast and in Brisbane. A particularly good place to see this butterfly in Brisbane is along the Brisbane River in front of the Queensland Museum, where its host *Cupaniopsis anacardioides*, the Tuckeroo, grows along the riverside pathway. This species has also been known as a minor pest of Macadamia Nuts (*Macadamia integrifolia*) and Litchis (*Litchi chinensis*). Lindsay Popple has also reared a specimen from *Diploglottis australis* (L.Popple, pers. comm.). Like most members of the Cornelian group, the Bright Cornelian is a rapidly flying species, with the two sexes spatially separated (i.e., the male and female butterflies occupy different positions within an overall habitat). For example, the males of this species stake out territories on or around its host tree, perching head down on tall trees, fiercely defending their turf with the full spirit of a World War Two fighter pilot! Any insect, particularly other Lycaenids, daring to enter the territory of this species will be immediately engaged in a spectacular mid-air dogfight, with the insects flashing across the sky, in line, wings beating furiously. It is therefore no wonder that males collected in the wild are frequently damaged or worn!

In contrast to the rapidly flying males, the females are damsels of the treetops, gently fluttering about inside the canopy of its host plant, seeking out the fruits upon which the ova are laid. The life history of this species, although well mentioned in literature, is incomplete, with the author preparing a full description for publication soon.

The ova are very comparable to a mandarin in both shape and shell patterning (the shells of many insect eggs are often adorned with intricate patterns formed by ribs and depressions) and are laid directly on the fruits of its host plants. Usually, the site of oviposition is in the well-defined clefts or sutures on surface of the fruits. However, ova have also been observed inside the fruits of *Harpullia pendula* previously attacked by larvae of this species, the female ovipositing through holes bored by previous larvae.

The larvae of this species attack the fruits of their hosts by boring into their flesh. In *Harpullia pendula*, the fruit is encapsulated by a thin shell, through which the larvae also bore, allowing females to oviposit inside the shell as well as in external clefts. The larvae feed on the insides of fruits of all hosts, frequently completely eating out the insides of the fruits themselves. In *H. pendula*, the entire fruit is eaten (hence the numerous empty pods found on street trees) and, in times of limited food, the shell may be completely eaten (observed in captivity only). This species also attacks the Macadamia Nut, with larvae observed attacking even the maturing nuts of this species.



Larva of *Deudorix diovis*
Sketch by John Neilsen

The larvae themselves are slug-like and quite colorful, the early instar larvae (Nielsen, in prep.) being light yellow with light brown or orange bands and are covered in numerous semi-translucent hairs, or setae. The mature larvae are distinctly different, being dark orange with a blue-grey border.

The species pupates either in the hollowed out fruit/shell of its host or in leaf litter at the base of the tree, with the latter appearing to be more common with the Tuckeroo. However, on Macadamia Nut, the species appears to pupate exclusively inside the fruits, with pupation in leaf litter not yet observed, although quite possible.

The larvae and pupae of this species have occasionally been found to be attended by the Coastal Brown Ant (*Crematogaster*? sp), and another unidentified species of ant (*Iridomyrmix*? sp.), which has been recorded by photographs lent to the author by Dr. Bert Orr. Other ants recorded in attendance with this species are listed by Braby (2000).

As is quite clear, much work is required on this species. I have been 'about to publish' the previously undescribed early instar stages of this species' life history and biological observations since 1999, but every time I solve an existing problem or revise my description of the larvae, a new problem to be solved arises. Like in all sciences, the more we discover about a particular subject, the more we find we don't know!

John Neilsen

References:
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Common, I.F.B. & Waterhouse, D.F. (1981) The Butterflies of Australia, Angus and Robertson, Sydney, Australia.
Parsons, M. (1999) The Butterflies of Papua New Guinea their Systematics and Biology, Academic Press, Sydney, Australia.
Tennent, W.J. (2000) Notes on *Deudorix* Hewitson in the Solomon Islands, the Bismark Archipelago, and New Guinea, with descriptions of nine new taxa, The Australian Entomologist 27 (1): 9-26, Swift Graphics, Brisbane.

Acknowledgments: I would like to thank my family for collecting *Harpullia* seeds and feeding hungry *Deudorix* larvae during a trip to Canberra, for coping with the *Ornithoptera* setting on the table, the entomological cabinets taking over the living room, the expeditions to Buderim Forest Park and enduring the smell of naphthalene in the house for the last 10 years. John Moss, Donald Sands, Albert Orr, Geoff Waite, Graham Forbes and Michael Rix are all thanked for their valued inputs and changes to the forthcoming paper on this topic.

PLANT PROFILE

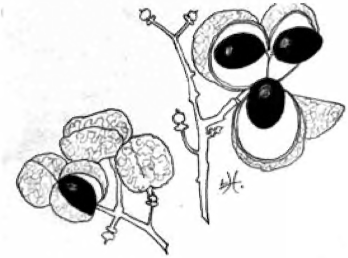
Tulipwood (*Harpullia pendula*)

In cultivation Tulipwood is an attractive ornamental tree. It has a spreading crown with a narrow trunk. Large trees eventually develop slight buttressing of the lower trunk. It has been used as a street tree for many years. In the rainforest, trees can reach a height of 18 metres and a trunk diameter of 2 metres. Cultivated trees usually only reach 12 metres and this after many years of fairly slow growth.

Tulipwood has small yellowish-green flowers which usually go unnoticed. The seedpods turn orange when ripe and split open usually revealing 2 shiny black seeds. A heavily laden tree makes an attractive display. The seeds are used by the caterpillars of the Bright Cornelian (*Deudorix diovis*) butterfly as a food source. Some trees are better bearers than others and it may take many years before there are any seeds at all. This becomes obvious in a long row of street trees where some are covered in orange pods but others remain frustratingly green.

The trees grow well in a variety of soil types but need to be well watered to thrive. Mulching and the use of fertilizer is also helpful. Fresh seed that hasn't been chewed by caterpillars germinates easily.

Each leaf is made up of 2-8 smaller leaflets. The leaves on young shoots are sometimes used as a food source by caterpillars of the Speckled Line-blue (*Catopyrops florinda*) butterfly. These green slug-like caterpillars are occasionally tended by small ants.



Seed pods of *Harpullia pendula*

Frank Jordan

REPORTS

Successful butterfly colony transfer? Martyn Robinson, Australian Museum.

On 11th November 2001 I was shown a site in Kellyville NSW where a colony of Imperial Blue Butterflies (*Jalmenus evagoras*) were soon due to be bulldozed for new housing blocks.

Ross Rapmund of the Kuringai Community Nursery had observed the colony for several years and provided the following information: -

- The caterpillars were feeding on saplings of *Acacia decurrens* (all under 2 meters in height in long grass along an old fence line in a derelict paddock).

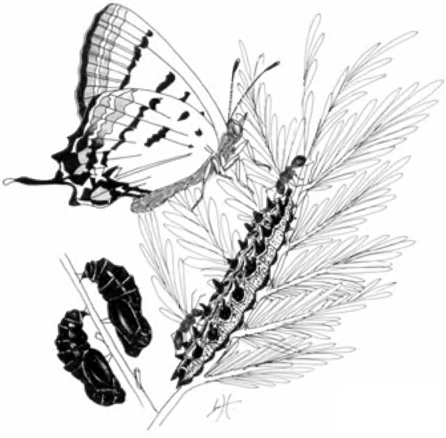
Jalmenus evagoras

- The surrounding vegetation was Cumberland Plains Woodland but the site was very close to the shale/sandstone transition zone (the ground was like cement due to the dry clay soil).
- Possible nectar sources for the emergent butterflies included Blackthorn – *Bursaria spinosa*.

The day was very hot and after a short while Ross's partner Melissa Lane discovered the first batch of caterpillars, which were covered in '*Iridomyrmex bicknelli* spp group' ants. The ants were very abundant and larger than your average 'little black ant'. They were visiting all the Acacia saplings whether these contained caterpillars or not – some were also tending scale insects. No butterflies were present and only a few pupae were seen, although the caterpillars varied quite a bit in size - from approx 4mm to almost 3 cm all intermingling in one batch!

From previous experience with another species of Lycaenid the caterpillars can only survive predators with the ants being present. As soon as the last attending ant disappears spiders, mantis and parasitic flies seem to wipe them out within a matter of days. It was therefore decided, as this colony was doomed anyway, to experiment with some to see if they could be established elsewhere as an integrated butterfly/ant unit.

A branch with about 17 caterpillars was taken from one of the saplings (not pleasant as the ants were ferocious defenders of the larvae and had a fairly potent nip and formic acid combination) and then the hunt was on for the ants nest. This proved near impossible with the long grass and blackberries. I was on the point of giving up when my partner - Lynne McNairn – kicked over an old fence post in a cleared patch of ground to reveal a mass of ants, eggs, larvae and pupae. As this nest was so far from the Acacia saplings I was initially unsure if they were the same ant species so I put a tube with two caterpillars next to them. I was pleased to see that the ants swarmed all over them and the tube but did not attack them but DID attack me!


Jalmenus evagoras lifecycle showing attendant ants

The next task was trying to get as much of the nest as we could from the concrete hard ground and shovel it into a sturdy plastic bag. I was sure the Queen was long gone to the depths of the nest by this time but didn't have a hope of reaching her with the inadequate trowel I'd brought. I just hoped that the ants could re-queen themselves from the eggs or tiny grubs accompanying them. Some *Iridomyrmex* ant species are known to have multiple interconnecting nests with several queens.

Back home the piece of fence post and the nest material was placed at the base of an *Acacia irrorata* sapling of approx 2m height. They immediately began gathering their larvae etc and disappearing under the post. Two caterpillars were placed on the *A. irrorata* foliage and within 10 minutes the ants had found them and began tending them. Over the next three days the caterpillars were checked to see if they had accepted the new species of food plant. Once this was confirmed the rest of the caterpillars were added (of possible interest is that while they were 'antless' but protected inside the caterpillars turned a duller texture). The ants tended them day and night, rain and sun. The caterpillars would clump together on the central stem in the evening and would be bristling with ants. A constant trickle of ants shuttled back and forth from the nest to the caterpillars - presumably taking honeydew to the nest. In the morning the caterpillars would leave the 'clump', either singly or in small groups, each with 3 or 4 ants riding on their backs like slow skateboard riders. Often the ants would get off and run ahead possibly checking for hidden dangers. Any spider or mantis encountered would be nipped at until it jumped off the branch. Reaching the leafy end the caterpillars would browse the foliage with ants constantly crawling all over them. Occasionally the caterpillars would twitch and I'm not sure but I suspect this was a signal to the ants. Certainly ants were attracted to twitching caterpillars.

Eventually the caterpillars pupated (sequentially rather than all at once) and the ants were just as diligent with attending the pupae. When the resultant butterflies hatched out they seemed to disappear and I suspected they'd all flown off for some reason. I was going to consider it an interesting experiment but probably unsuccessful in the long term. However on 16th December 2001 I was alerted to some small light and dark butterflies actively chasing each other in spirals out in our front garden (the *A. irrorata* is about 100m away at the bottom of a steep backyard). They proved to be *J. evagoras* courting on the first hot weather we'd had in a while. They were feeding on Buddleia but more frequently on a red Callistemon cultivar. Out of curiosity I had a look at the *A. irrorata* and there were no butterflies and the ants were showing more interest in the ground than the foliage (I'd 'snippered' the weeds that morning). I was just pulling up a few weeds I'd missed when a movement near the Acacia caught my eye. As I watched a female *J. evagoras* (which had just landed) inspected the base of the Acacia and presumably having ascertained that the right ants were present she then climbed the trunk in a spiral while dragging the tip of her abdomen along the bark as she went. When she reached the first major branch she proceeded to lay a cluster of eggs! In all probability they may have needed to feed for several days before laying and/or other batches of eggs are hidden on the trunk where I can't yet find them.

I can now regard this as a possible success as both ants and butterflies seem to have established over at least one cycle – at the least I think the results are worth reporting.

Perhaps some other members have experience along this line or with other ant-tended species?

Martyn Robinson

Ed. Following the Sydney bush fires I enquired of Martyn how he and the colony had fared. His comments follow –

18.1.02 - We were fine but the *Jalmenus* (which by that time had hatched) shriveled up or otherwise didn't hatch (tho' I haven't checked them recently). It might also be that they need an intermediate generation of *Jalmenus* caterpillars to attract many ants while the eggs and tiny caterpillars develop? Anyway that's what's happened to date and we've survived the fires and have since had rain but I haven't been out to the Kellyville colony recently so I don't know how they survived the fires or houses.

24.1.02 - Went out and checked the *Jalmenus* site at Kellyville yesterday and it's in exactly the same state as our garden (i.e. no recent sign of caterpillar activity and all the hatched pupal remains look about the same age) so at least I can say that the transferred colony seems to be behaving naturally (in comparison to the Kellyville site) and perhaps (based on '94) both have survived by some means that I'm unaware of.

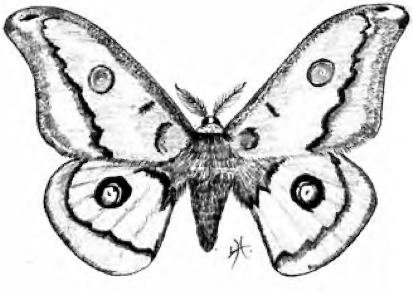
25.1.02 - The home colony seems to be in the same state as the wild one (there's plenty of egg patches still visible at home so I don't know if they've hatched or are going to hatch next season. Certainly the sample I brought inside hatched a few weeks back but when I put them on the plants outside all the caterpillars disappeared - very mysterious!)

EXCURSION REPORTS

BOIC Stockyard Creek Excursion 1 December 2001

The day was very hot and humid and with the late start (4.00 pm) to our end of year excursion the walk to Stockyard Creek did not produce a large number of invertebrates.

The only butterflies sighted were Common Crow (*Euploea core*) and Painted Lady (*Vanessa cardui*). A few cicadas were in evidence and the songs heard were Brown Bunyip (*Tamasa tristigma*), Paperbark Cicada (*Cicadetta hackeri*), Bronze Bark-buzzer (*Pauropsalta circumdata*), Red Squeaker (*P. rubea*), Bark Squeaker (*P. corticinus*), Small Bottle Cicada (under revision) and Bottle Cicada (under revision). A Robber Fly rounded out the short list.



Helena Gum Moth (*Opodipthera helena*)

After a barbecue and a chance to catch up with friends, old and new, two light traps were set and we awaited, with interest, which invertebrates would be attracted.

The most abundant visitors were winged termites which made it a bit uncomfortable closer to the light. Two Helena Gum Moths (*Opodipthera helena*) were the most spectacular callers along with a Wood Roach, Caddis Fly, Xmas Beetles, Stag Beetle, Crane Fly, Owl Fly, Bark Mantis and a cicada – the Red Squeaker (*Pauropsalta rubea*).

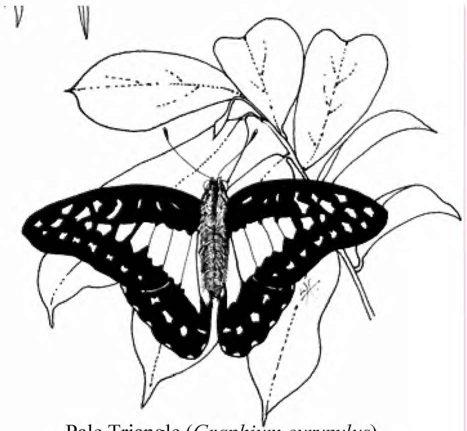
A large "Lady Beetle" – orange with 7 black spots was probably the favourite for most.

Rob MacSloy

BOIC Tamborine Mountains Excursion 20 January, 2002

Twenty-six happy enthusiasts, later joined by two more and led by the intrepid Doug White, went seeking butterflies through private property in North Tambourine on a beautiful (or was it a perfect?) Queensland day. Our first unusual find along the track was a custard-colored female Pale Triangle *(Graphium eurypylus)* and a normal pale-blue colored male.

Cicadas then forced their noisy attention on us with Razor Grinders (*Henicopsaltria eydouxii*), Small Bottle (*Chlorocysta vitripennis*), Red Tree-ticker (*Birrima castanea*) and Phantom Knight (*Psaltoda brachypennis*) threatening to drown each other (and our hearing) with their varying choruses, so happy were they to be above ground in the sun and air.



Pale Triangle (*Graphium eurypylus*)

Sighs of relief from the females followed the swift and indignant disappearance of a small but venomous black Small-eyed Snake (*Cryptophis nigrescens*) cautiously displayed by Frank Jordan, after it hid in the base of a palm frond beside the track. Reported here were a black and cream day-flying moth (*Cruria donovanii*), Robber Fly (Asilinae spp). and a Regent Damselfly (*Nososticta solida*).

Chequered Swallowtail (*Papilio demoleus sthenelus*)

Continuing downhill we saw a Chequered Swallowtail (*Papilio demoleus sthenelus*), Lesser Wanderer (*Danaus chrysippus petilia*), Painted Lady

(*Vanessa kershawi*), many Blue Triangles (*Graphium sarpedon*) and several Orchard Swallowtails (*Papilio aegeus*). One Large Darter (*Telicota anisodesma*) landed nearby and a Narrow-banded Awl (*Hasora khoda*) was caught by Steven Kerkow. After this, a Common Grass-blue (*Zizina labradus*) and a Speckled Line-blue (*Catochrysops florinda*) were identified, before the entire party were galvanized by piercing shrieks! Recognizing two male Richmond Bird-wings (*Ornithoptera richmondia*), Cory Dale terrified both them and all the other quietly unsuspecting observers with his joyous screams.

Another cause for glee was Frank's spotting a Regent Skipper (rare white form), promptly netted by Luc Lignieres and photographed by John Moss.

Butterflies seen which were originally called "Common" were: the still Common Crow (*Euploea core*), the White-banded Aeroplane (*Phaedyma shepherdi*), Yellow Albatross (*Appias paulina*), Brown Ringlet (*Hypocysta metirius*), Varied Eggfly (*Hypolimnas bolina*) and now Common Pencilled-blue. After viewing the Wirope Falls trickling gently over wide rocks and down the escarpment, we backtracked to a crossing with a partial bridge above used since the 1880s, to tuck into well-earned refreshments.

Food plants noted along the track included *Boehmeria, Pipturus* for the Jezabel Nymph, native wisteria *(Millettia* now *Callerya megasperma)* for Brown Awls and whip vine *Flagellaria indica* for Large Darters.

Again shrieks disturbed our digestion! This time from Xavier Lignieres as Cory had caught a female Birdwing, which he subsequently released after photographs were taken.

Back to the return climb after lunch – we saw a Large Grass-yellow (*Eurema hecabe*), Wonder Brown (*Heteronympha mirifica*), Evening Brown (*Melanitis leda*), and Jezabel Nymph (*Mynes geoffroyi*). Suddenly the excitement rose again, Steven had netted a rare and colorful orange form of the Jezabel Nymph, so shutters snapped again as viewers gathered.

To the baritone sound of the Double Drummer (*Thopha saccata*) and partly escorted by a scarlet dragonfly *Diplacodes haematoides,* we made the last discoveries: an Australian Leafwing (*Doleschallia bisaltide*), Striated Pearl-white (*Elodina parthia*), Four-barred Swordtail (*Protographium leosthenes leosthenes*), and Hairy Line-blue (*Erysichton lineata*). The party was somewhat strung out by the time we reached the vehicles at the top of the climb. Here were many

Australian Leafwing (*Doleschallia bisaltide*)

Milkweeds or Cotton Bushes (*Gomphocarpus fruiticosa*) with a Monarch (*Danaus plexippus*) flying by, perhaps looking for a likely cradle.

On the way home a short visit was made to the Esme Street Neighbourhood Forest Regeneration plot. Here Cory discovered his object, the pupa of a Regent Skipper (*Euschemon rafflesia rafflesia*) on a *Wilkiea huegeliana,* which partly compensated for his inability to secure the colorful adult, fluttering rapidly out of reach.

Tally for the day: 28 butterfly species including two color aberrations, 5 cicadas, half a dozen damsel and dragonflies and 1 moth.

Colleen Raboczi

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Cicadas – The Adventure Continues

After a previous successful trip with Lindsay Popple looking for Cicadas (and one fizzer when we failed to hear or see even one due to constant rain), he and I decided to make a couple of visits to areas of different habitats during December 2001 and January this year.

During the two trips we travelled over 1300 kilometres in the 2 days – day one in December being out through Warwick, Coolmunda Dam, Leyburn, Milmerran and back through Pittsworth and Toowoomba and day 2 in January through Dalby, Bunya Mountains, Kingaroy, Blackbutt and Mt Mee.

Species recorded totalled 43 including 16 undescribed species which was a good result considering over half of each day was taken up with driving – obviously staying overnight in the areas concerned would give a much better result.

Many common species were recorded but the main interest was in the undescribed ones some of which were new for me.

Some cicadas are named because of the different trees and vegetation they are commonly associated with eg. Wattle Cicada (*Cicadetta oldfieldi*) and Cassinia Cicada (*Cicadetta puer*). There are undescribed species which have the same close associations and these include: Callitris Squeaker (*Pauropsalta* sp.nov) which was encountered on the Coolmunda Dam-Texas Road and located by keeping an eye out for areas where *Callitris* grew.

Copper Shrub-Buzzer (*Cicadetta* sp. nov) which was found near Jondaryan and is commonly (though not always) found in *Myoporum* shrubs.

Black Brigalow Buzzer (*Notopsalta* sp. nov) and Yellow-spotted Brigalow Cicada (*Cicadetta* sp.nov) which are, as their name suggests, found in the ever decreasing remaining areas of brigalow mainly on the Darling Downs.

Lime Grass-ticker (*Urabunana* sp. nov)

Other (mainly small) species are associated with long grasses and these include: Lime Grass-ticker (*Urabunana* sp. nov.) – outside Jondaryan; Warwick Grass Buzzer (*Notopsalta* sp.nov.) – around the Warwick area; Smoky Buzzer (*Cicadetta waterhousei*) – near Leslie Dam outside Warwick; Amber Grass-ticker (*Pauropsalta emma*) – around Yamanto on the Cunningham Highway and Bent-winged Grass-buzzer (*Urabunana verna*) recorded near Blackbutt. The last-mentioned species was not heard to call but by vigorous sweeping of long grass patches with a net several specimens (as well as the Brown Sugar Cane Cicada (*Cicadetta crucifera*)) were obtained.

Cherrynose (*Macrotristria angularis*)

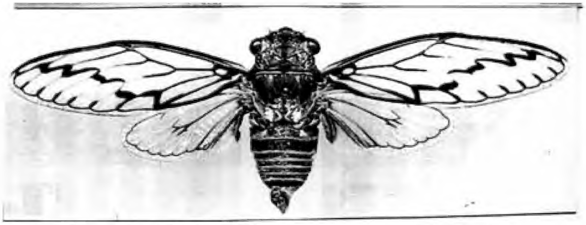
Other records of interest were: Cherrynose (*Macrotristria angularis*) – recorded in large numbers on the Kingaroy-Nanango Road.

Little Baron (*Psaltoda mossi* –in press) – recorded between Jondaryan and the Bunya Mountains and at Kingaroy.

Double-spotted cicada (*Cicadetta labeculata*) – a lone male calling at Kingaroy.

Kettledrum Cicada (*Cicadetta* sp. nov) – a medium-sized cicada with a very distinctive song, reminiscent of the kettle drum which is an integral part of American High School Bands, was encountered near Jondaryan.

Wilga Ticker (*Cicadetta* sp. nov) – a small species with a very quiet, high-pitched song



Queensland Bark Cicada (*Burbunga queenslandica*) consisting of repeated "tick-tick" which was collected at Coolmunda Dam near Inglewood.

Qld. Bark Cicada (*Burbunga queenslandica*) – heard around the Jondaryan area with its distinctive buzzing call – could also be called the Lightning-bolt Cicada or even the "Harry Potter"! Cicada.

The only disappointment was a trip over Mt. Mee looking, unsuccessfully, for the Bladder Cicada (*Cystosoma saundersii*) at dusk.

All in all two very successful and enjoyable trips – next the search for the elusive Small Blue Bunyip (*Tamasa* sp. nov) which will take place early in March.

Rob MacSloy

Ref: BOIC Newsletter Issue 13 June 1999 (pages 7-9)
Images scanned of photographs by Lindsay Popple

ARTICLES OF INTEREST

A guild of butterflies

Many club members will be aware of the endangered Laced Fritillary *(Argyreus hyperbius)* butterfly especially if they have seen Lois Hughes painting featuring it. Some are already growing its host plant, Arrowhead Violet *(Viola betonicifolia),* in case the butterfly turns up in their area.

Laced Fritillary *(Argyreus hyperbius)*

I have been growing these violets since 1970 and have often wondered what pollinates their flowers. Their main flowering period runs from June to September, basically through the depths of winter. Many insects become inactive during colder weather and so, many of the usual pollinating agents would not be able to do the job. Over the years I have seen the occasional European honeybee pollinate some flowers and sometimes small butterflies, probably pea blues, would interrupt their journey to stop at a few flowers.

However, this year I realised that another pollinator was at work. When a flower is pollinated it closes up the next day and judging by the number of prematurely closing flowers I was close to solving this mystery.

It took a while but eventually I caught the culprits in the act. It turned out to be Large Grass Yellow *(Eurema hecabe)* butterflies. In my yard these butterflies arrive in autumn to breed on their host plant, *Breynia oblongifolia*, that I have growing for them. As the weather gets colder the breeding stops but some of the butterflies hang around, hiding in the shrubbery. I often flush these out of their hiding places when I water the garden.

In the middle of sunny winter days these butterflies would become active and fly around visiting the violet flowers. The extra nectar from the flowers would no doubt help them last through the winter. *Breynia oblongifolia* is a common plant in the vicinity of Melaleuca swamps where violets grow and I have also flushed Large Grass Yellow butterflies from the grass around these plants.

So, two mysteries solved at the one time; what helps Large Grass Yellows to survive the winter and what pollinates Arrowhead Violets? The variation in flower shapes and colours indicate it is highly likely that there are other pollinators of violets out there. However it is now possible to ensure that the genetic diversity of a patch of violets is maintained by creating suitable conditions for the over-wintering of Large Grass Yellow butterflies. Mostly this would be achieved by ensuring the presence of its host plant *Breynia oblongifolia.*

Common Grass Yellow visiting Arrowhead Violet

The other butterfly that is important for the Laced Fritillary is the Lesser Wanderer *(Danaus chrysippus)* which is poisonous to birds. Apparently by mimicking this butterfly the Fritillary also obtains some protection from birds. Luckily a native host plant of the Lesser Wanderer also grows near coastal Melaleuca wetlands and this explains why the two butterflies are often found together.

The host of the Lesser Wanderer in coastal areas is a trailing vine called Mangrove Milkweed *(Cynanchum carnosum).* It should be included in any plantings of violets to provide habitat for the Fritillary. If it proves too difficult to establish, the exotic milkweeds utilised by the Lesser Wanderer should be investigated as potential replacements.

These observations indicate that the lifecycles of these three butterflies are inter-dependent in a complex manner. If you have any observations, in particular about

Lesser Wanderer *(Danaus chrysippus)*

the Laced Fritillary butterfly, the Club would be interested in hearing from you, as this butterfly needs all the help it can get.

Frank Jordan

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What's in a (Common) Name?

The recent (2000) CSIRO landmark publication "Butterflies of Australia : Their Identification, Biology and Distribution" by M.F. Braby, incorporated many new standard common names for our Australian butterfly fauna. These changes were foreshadowed in the 1997 paper by Braby et al (Ref.) which comprehensively summarized all current and former butterfly common names, proposed many original and appropriate new names and invited comments on their suitability. Both our Club and this writer were amongst those who responded to the invitation to comment and it was pleasing to see that several of our suggestions were accepted and now appear in Braby, 2000.

In the event, some well established names were retained and some were discarded. Unfortunately, in order to be "consistent", a few inappropriate names were erected - for example the name "Green Darter" for the skipper *Telicota ancilla* in place of Greenish Darter and "Green Grass-dart" for the grassdart *Ocybadistes walkeri* in place of Yellow-banded Dart. In truth neither of these two species are green – they are predominately brown with yellowish-orange markings. Some specimens, in particular those recently emerged, do have a greenish suffusion on the underside of the hindwings, but this in itself could not justify what really are quite misleading names. Similarly, the recently described grassdart *Ocybadistes knightorum* has a dark brown (not black) upperside with yellowish markings and a dark gold or dark yellowish-brown underside with yellowish markings, and thus the new name "Black Grass-dart" is somewhat inappropriate. A name using "dark" or "dusky" may have been more appropriate.

The main problem with this group of small Skippers is that their wing colours are all basically mid to dark brown with yellowish-orange markings, and previous common names such as orange dart or grassdart, pale orange dart, dark orange dart, yellow dart or grassdart, yellow-banded dart, common dart and dingy dart are both confusing and impractical.

Braby et al (1997) tried to overcome this by erecting for this group more appropriate names based on other characteristics, such as distinctive markings, shape of sex-brand etc. and unifying them all into a group based on their habitat and/or hostplants. Thus this particular group all became “Grass-darts” (and not “dart”, “Grass Dart” nor “grassdart”).

Because of natural limitations, even this had its short-comings eg. the Wide-brand Grass-dart” (formerly the “Orange Dart”) *Suniana sunias* is not the only grassdart with a wide sexbrand. The afore-mentioned *Ocybadistes walkeri* and *O.knightorum* also have wide sexbrands. Thus giving these names such as “Greenish (or even Green) Grass-dart” still has not eliminated the ambiguity and misleading diagnosis. To further confuse the issue, the population of this species in the Northern Territory does not even have the underside greenish suffusion!

Taken one step further one could imagine descriptive common names for the separation of these three species such as “Yellowish Wide-brand Grass-dart”, “Dark-gold Wide-brand Grass-dart”and “Greenish-yellow Wide-brand Grass-dart” – but obviously this would be far too cumbersome and defeat the purpose of erecting names that are both distinctive and easy to remember.

Another concern, within this group of grassdarts, is the use of an earlier species name for a different species eg. “Orange Grassdart”, once used for *Taractrocera anisomorpha*, is now to be used for *Ocybadistes ardea* (formerly the “Dark Orange Dart”) and “Dingy Grassdart”, once used for *Taractrocera dolon*, is now to be used for *Suniana lascivia* (formerly the “Dingy Dart”). This is a better arrangement based on appropriate colour descriptions, and the two *Taractroceras* likewise have ended up with appropriate names. However, confusion could result when reading the old literature (containing the former names) if these changes are not taken into account. However, reference to the “Braby Book” which has a listing of all current and alternative common names for each species should obviate this problem.

Taken to its logical conclusion, it may well be easier to learn and use the scientific names for butterflies, even abbreviating them to the species epithet when used in conversation, as many of us do now. There is still a problem with this system insofar as we once believed that scientific names were stable and permanent. However taxonomic revision has led to many changes (especially in recent years) eg. The Small Green-banded Blue, currently *Psychonotis caelius* has previously been both *Thysonotis hymetus* and *Danis hymetus*. In the scientific literature these names can’t be avoided – they must be used. It is really up to individuals to learn and use whichever valid name suits their purposes.

As most of our readership would not have read (nor had access to) the paper by Braby et al (1997), we will be reprinting it in part over our following two or three issues. By so doing one can form one’s own opinions on these changes. We would welcome your feedback, especially your comments on whether we should only use the new common names (as in Braby, 2000) or be at liberty to use a former familiar name or indeed another new but appropriate common name.

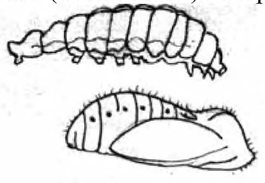
John Moss

Reference: Braby M.F., Atkins A.F., Dunn K.L., Woodger T.A .and Quick W.N.B., 1997: : *A Provisional List of Common Names for Australian Butterflies* in Australian Journal of Entomology 36:197-212

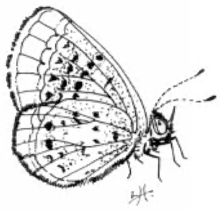
CREATURE NOTE

Creature Note #28 – Common Grass-blue host confirmed

Some time ago Frank Jordan mentioned to Club members that he suspected that Emu Foot (*Cullen tenax*) host plant for the Chequered Swallowtail, was also host for the Common Grass-blue. When collecting Emu Foot seeds recently in preparation for Club members requests for seeds, I collected a couple of seed heads which also contained a number of green seeds. On the 28th November 2001 I discovered a small green pinkish caterpillar on the side of the container. Anticipating it being a Common Grass-blue I placed Emu Foot leaves in a container, which it readily accepted, however green seed heads were its preference. It pupated between the 2nd and 3rd December and emerged on the 12th December 2001, thus confirming Frank's suspicions. So, Club members, keep your eyes open. Who knows what wonderful discoveries will be made this year, and by whom!



Common Grass-blue larva
and pupa

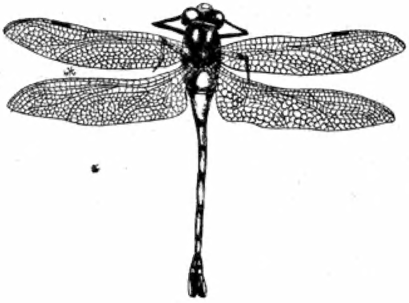


Adult

Lois Hughes

Update on Creature Note #25 Issue No. 20 March 2001

Second sighting of the Giant Dragonfly (*Petalaura litorea*) at West Mt. Cotton.



Petalaura litorea

Early Sunday morning of the 27th January 2002 my husband John excitedly called for me to get outside urgently. He was standing beside our small fig tree on which was perched the biggest dragonfly I have ever seen. It was dark (I said grey, John said brown!?) with some markings on its sides and with unmistakable spoon shaped tail flanges. As I approached, it flew away. We visually followed it but as it was an extremely windy day we soon lost sight of it against the backdrop of the trees. It will be interesting to see where it turns up next.

Lois Hughes

WORLD WIDE WEB SITES TO WATCH

Aussie Bee http://www.zeta.org.au/~anbrc/ Promoting the Enjoyment and Preservation of Australian Native Bees. This site provides information regarding the Native Bee survival of the Sydney bushfires.

LIBRARY BOOKS FOR LOAN

The following books are currently available for loan at meetings:-

Australia's Butterflies, by Peter Wilson
Butterfly Magic, by Helen Schwencke and Frank Jordan
Australian Cicadas, by Max Moulds
Butterflies of Australia, by Common and Waterhouse, 1981
Butterfly Watching, by Paul Whalley
Flying Colours, by Mike and Pat Couper
All Colour Book of Butterflies, by Robert Goodden
Lifecycle of the Ulysses Butterfly, Video, by Janet Richardson
Lifecycle of the Cairns Birdwing Butterfly, Video, by Janet Richardson

BACK ISSUES

Back Issues of the Club Magazine are available at a cost of $1 each plus postage (3-6 copies - $1.50. 1-2 copies $1.10)

ADS AND EXCHANGES

Sometimes you may have an oversupply of butterfly larvae and your food supply will not hold out. If this happens, contact Rob MacSloy - 07 3824 4348 - who operates the Register of Host Plants. He can put you in touch with prospective "foster parents'. Have **YOU** advised Rob of the host plants you have available?

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The poster, Swallowtails of South East Queensland, compiled by the BOIC, can be obtained from BOIC, PO Box 2113, Runcorn, 4113. The cost for members is $8 plus $5 postage and handling. Non-members $12 plus $5 postage handling.

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"The Laced Fritillary" a painting by Lois Hughes. Prints now available. 12 beautiful butterfly card designs also available now. Phone Lois on 3206 6229.

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See Garry Sankowsky's host plant offer in September Newsletter.

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In issue #20 we featured the Chequered Swallowtail and its hostplant *Cullen tenax.* Lois Hughes has quantities of *Cullen tenax* seeds available. Send a stamped addressed envelope to 163 West Mt. Cotton Road, Mt. Cotton, Qld. 4165.

Australian Ants: Their Biology and Identification. by Steve Shattuck. 238 pp (16 full colour plates), CSIRO Publishing. This hardcover version is the definitive book on Australian ants containing a complete list of all Australian ant genera (including identification keys) with scanning electron micrographs (b&w) of all but two genera. All Australian species listed. Unused, as new condition $60, ph. (07) 3378 5467

BUTTERFLY AND OTHER INVERTEBRATES CLUB PROGRAMME

March – July 2002

A visit to Lois and John Hughes' property at Mt. Cotton

When: Saturday 23rd March meeting at 1 pm
Where: 612/163 West Mt. Cotton Road, Mt. Cotton (Capalaba end)
What: 10 hectares of bushland with many butterfly host plants
RSVP: Lois Hughes phone 07 3206 6229 (or email bowden@free2air.com.au)

A visit to Jak Guyomar's property at Gumdale

When: Saturday 20th April meeting at 1 pm
Where: 789 Grassdale Road, Gumdale, 0.4 km west of the New Cleveland Road intersection
What: Jak has about 10 hectares of bushland with many butterfly host plants and other natural features. He also has an extensive butterfly collection incorporating many Australian and exotic species.
RSVP: John Moss phone 07 3245 2997 (or email bowden@free2air.com.au)

Planning and Management Meeting

What: Our planning meetings are informative and interesting. As well as planning our activities we share lots of information. All members are welcome.
When: Wednesday 1st May, 7.00-9.30 pm
Where: John's place. Please contact him for details – 07 3245 2997

Our winter program will consist of a series of slide evenings and show and tell

When: 1. Wednesday, **8th May**, 7.30pm - featuring Moths
2. Wednesday, **12th June**, 7.30 pm – featuring Butterflies
3. Wednesday, **10th July**, 7.30 pm – featuring Other Insects
Where: Redlands Indigiscapes Centre, Runnymede Road (off Redland Bay Road), Capalaba

RSVP: John Moss phone 07 3245 2997 (or email bowden@free2air.com.au)

If you plan to attend any of the above events please respond to the person indicated in case, for some unforeseen circumstance, the event has had to be postponed or cancelled.

DISCLAIMER

The Newsletter seeks to be as scientifically accurate as possible but the views, opinions and observations expressed are those of the authors. The Newsletter is merely a platform for people to express their views and are not necessarily those of the BOIC. If inaccuracies have inadvertently occurred and are brought to our attention we will seek to correct them in future editions. The Editor reserves the right to refuse to print any matter which is unsuitable, inappropriate or objectionable and to make nomenclature changes as appropriate.

ACKNOWLEDGMENTS

Producing this newsletter is done with to the efforts of:

- Those members who have sent in letters and articles
- Lois Hughes who provides illustrations including the cover
- Daphne Bowden who works on layout, production and distribution
- John Moss for scientific referencing and proof reading
- Helen Schwencke who developed the overall design
- Frank Jordan for inspiration

We would like to thank all these people for their contribution

ARE YOU A MEMBER

Please check your mailing label for the date your membership is due for renewal. If your membership is due, please renew as soon as possible.
Membership fees are $12.00 for Individuals/Schools and $17.00 for family membership.

Butterfly and Other Invertebrates Club Inc.
c/- PO Box 2113
RUNCORN Q. 4113

Next Meeting: Saturday 23rd March at Lois and John Hughes' property (see programme for details)